

Attorney Docket No. P11036-US1  
Customer Number 27045

### AMENDMENTS TO THE ABSTRACT

The Abstract has been amended as shown. A clean copy is attached hereto on a separate sheet.

~~The invention relates to a~~ A method for suppressing narrow frequency bands during transmission of data ~~by means of utilizing a multi-carrier method, e.g. DMT (discrete multitone)~~ such as Discrete Multi-tone (DMT). A predetermined broad frequency band is divided into numerous subchannels having sub-carriers assigned thereto. The data to be transmitted is modulated in the transmitter by means of Inverse Discrete Fourier Transformation (IDFT) and is demodulated in the receiver by Discrete Fourier Transformation (DFT). A pulse for compensating the side lobes, which appear in the phase-out area, is transmitted for each frequency range having a zero charge and extending between the ~~subcarriers~~ sub-carriers which are contained in the phase-out area or are adjacent to the phase-out area. ~~Said~~ The pulse is respectively provided with a frequency range, which resembles the side lobes that appear in the intermediate area. ~~Said~~ The pulse is controlled according to the data values of the side lobes ~~which appear in the intermediate areas, whereby the compensation pulse/s is/are~~ and is orthogonally transmitted to the information-carrying subcarriers sub-carriers.

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### Abstract

A method for suppressing narrow frequency bands during transmission of data utilizing a multi-carrier method such as Discrete Multi-tone (DMT). A predetermined broad frequency band is divided into numerous subchannels having sub-carriers assigned thereto. The data to be transmitted is modulated in the transmitter by means of Inverse Discrete Fourier Transformation (IDFT) and is demodulated in the receiver by Discrete Fourier Transformation (DFT). A pulse for compensating the side lobes, which appear in the phase-out area, is transmitted for each frequency range having a zero charge and extending between the sub-carriers which are contained in the phase-out area or are adjacent to the phase-out area. The pulse is respectively provided with a frequency range, which resembles the side lobes that appear in the intermediate area. The pulse is controlled according to the data values of the side lobes in the intermediate areas, and is orthogonally transmitted to the information-carrying sub-carriers.